

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTONTHE SILKY POCKET MOUSE, *PEROGNATHUS FLAVUS*, IN ARIZONA, WITH A DESCRIPTION OF A NEW SUBSPECIES

BY DONALD F. HOFFMEISTER

Museum of Natural History, University of Illinois, Urbana

Specimens recently collected by the Museum of Natural History, University of Illinois, together with specimens in the United States National Museum (including those in the Biological Surveys collection), give us added information on the geographical variation and distribution of the silky pocket mouse, *Perognathus flavus*, in Arizona. According to the present evidence, five subspecies of *Perognathus flavus* occur in Arizona. The ranges of these subspecies are shown in figure 1. One of these subspecies is new and may be characterized as follows:

Perognathus flavus goodpasteri, new subspecies

Type.—Adult male, skin and skull, no. 6312, Univ. Illinois Mus. Nat. Hist., from 2¾ miles northwest of Springerville, Apache County, Arizona; collected August 16, 1953, by Charles A. McLaughlin, original no. 476.

Range.—Known only from immediately north of Springerville, Arizona.

Diagnosis.—A race of *Perognathus flavus* characterized by upperparts especially dark in color; sides of face and body bright buffy and not overlaid with black; size small. Color of dorsum is Light Ochraceous-Buff (all capitalized color terms are taken from Ridgway, Color standards and color nomenclature, 1912), heavily overlaid with black; sides of body and nearly all of cheeks near (*e*) Light Ochraceous-Buff not overlaid with black; nose only lightly overlaid with black; underparts slightly washed with Pinkish Buff; postauricular patches conspicuous and Light Ochraceous-Buff or Pinkish Buff. Size small in both external and cranial features.

Comparisons.—*Perognathus flavus goodpasteri* is most closely allied with *P. f. fuliginosus*, from which its range is rather widely separated (see figure 1). *P. f. goodpasteri* differs from *P. f. fuliginosus* in having the buffy color more extensive on the cheeks, in the scapular region, and above the lateral line; the underparts are less extensively washed with Pinkish Buff; the overlay of black on the dorsum is slightly greater. In the specimens available, it appears that the skull

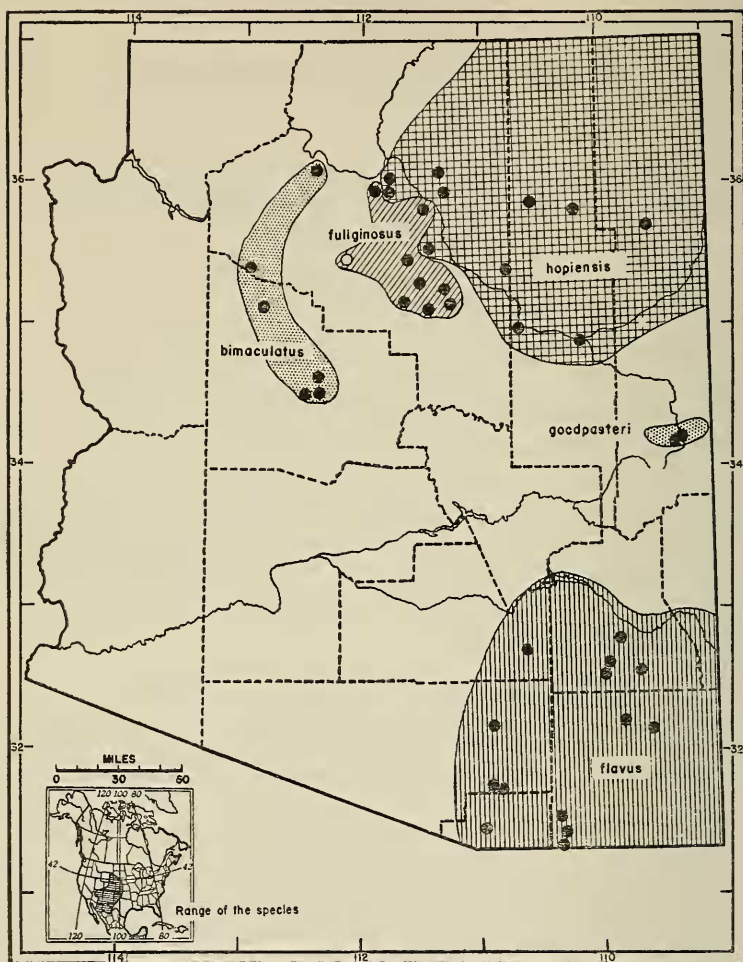


Figure 1. Range of subspecies of *Perognathus flavus* in Arizona.

in *goodpasteri* is shorter (as indicated by basilar and occipitonasal lengths) than in *fuliginosus*.

P. f. goodpasteri differs from *P. f. hopiensis* in having a dorsal coloration much darker, presence of a wash of buff on underparts, conspicuous postauricular patches, ground color of upperparts a deeper, richer buff, and smaller size. *P. f. goodpasteri* differs from *P. f. flavus* in much the same way that it differs from *P. f. hopiensis*. *P. f. goodpasteri* differs from *P. f. bimaculatus* in having a darker coloration, more conspicuous postauricular patches, and smaller size.

Measurements.—The type male, a topotype female, and a female

from 3 miles north of Springerville, all adults, give the following measurements, in millimeters, respectively: total length, 107, 114, 114; tail, 54, 52, 48; hind foot, 17, 16, 17; ear from notch, 7, 6, 6. Cranial measurements of the type and toptype, respectively, are: basilar length, 14.4, 14.3; occipitonasal length, 20.5, 20.5; greatest mastoidal breadth, 12.2, 12.3; least interorbital width, 4.4, 4.6; length of nasals, 7.2, 7.6; width of nasals just in front of incisors, 2.0, 2.2; length of interparietal (along median line), 3.1, 2.8; greatest width of interparietal, 3.1, 3.5; alveolar length of maxillary toothrow, 3.3, 3.2.

Remarks.—*Perognathus flavus goodpasteri* is a dark-colored race found in the plains-like short grassland which is interspersed with volcanic rock just to the north of Springerville, Arizona. This subspecies may occur in some other places along the north rim of the Mogollon Plateau in Navaho and Apache counties, but in our collecting, we found it to be uncommon. *P. f. goodpasteri* differs markedly from the subspecies which are geographically nearest (*hopiensis* and *flavus*) and is most similar to *fuliginosus*. Additional collecting may prove that *goodpasteri* and *fuliginosus* intergrade.

This subspecies is named for Woodrow W. Goodpaster, whose indefatigable and thorough collecting in Arizona has provided us with much valuable information on the mammals of the southwest.

Specimens examined.—Arizona: Apache County: 3 mi. N Springerville, 2 (Univ. Ill., Mus. Nat. Hist.); 2¾ mi. NW Springerville, 2 (Univ. Ill., Mus. Nat. Hist.).

Comments on Other Subspecies of *Perognathus flavus* in Arizona

Five subspecies of *Perognathus flavus* are found in Arizona. Those from along the Mogollon Plateau are dark in coloration, with *goodpasteri* darkest, *bimaculatus* lightest, and *fuliginosus* intermediate. *P. f. bimaculatus* is the largest of the three. Those subspecies from north and south of the Mogollon Plateau, *hopiensis* and *flavus*, respectively, are light colored.

Specimens of *Perognathus flavus* from Arizona in the collections mentioned above indicate that the ranges for those subspecies other than *goodpasteri* may be defined as follows (also see figure 1):

***Perognathus flavus bimaculatus* Merriam.**—Ranges from near Prescott northward around the western side of the Mogollon Plateau through Aubrey Valley to the south rim of Grand Canyon (Pasture Wash Ranger Station, no. 9985, Univ. Ill., Mus. Nat. Hist.).

***Perognathus flavus hopiensis* Goldman.**—In Arizona, occurs in the northeastern corner of the state, mostly north or east of the Little Colorado River and east of the Colorado River. However, known from west of the Little Colorado as follows: southeastern corner of Grand Canyon National Park on the east and west side of Cedar Mountain and the southeast entrance gate to Grand Canyon; along U. S. Highway 89 at entrance to Wupatki National Monument.

***Perognathus flavus fuliginosus* Merriam.**—Ranges along the lower slopes of the San Francisco Mountains and the Mogollon Plateau in the vicinity of Flagstaff, northward nearly to Grand Canyon National Park (Locket Tank in Cedar Ranch Wash). Specimens labelled as Tanner

Tank, near the Little Colorado River, are referable to *fuliginosus*. Reportedly (Jour. Mammalogy, 18:101, 1937) occurs as far west as Bly (indicated on figure 1 by circle).

Perognathus flavus flavus Baird.—In Arizona, occurs in the southeast corner of the state, south of the Gila and east of the Santa Cruz rivers.